**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
**REGION 8**
1595 Wynkoop Street
Denver, CO 80202-1129
Phone 800-227-8917
www.epa.gov/region8

NOV 6 2013

Ref: 8EPR-SR

Ms. Carolyn Rutland
Montana Department of Environmental Quality
P.O. Box 200901
Helena, MT 59620-0901

Re: Libby OU1 Post-Construction SAP/QAPP

Dear Ms. Rutland,

This letter responds to Montana Department of Environmental Quality (MDEQ) comments sent to the EPA regarding the Post-Construction Sampling Analysis Plan/Quality Assurance Project Plan for Libby Operable Unit 1. A technical memorandum is enclosed that includes the EPA responses to MDEQ's comments.

Please feel free to contact me at 303/312-7122 or by email at zinner.dania@epa.gov, if you have any questions or comments regarding this letter.

Sincerely,

Dania Zinner
Remedial Project Manager
Libby Asbestos Superfund Site

Enclosure

cc: Rebecca Thomas, USEPA Region 8
Lorraine Ross, USEPA Region 8

# Memorandum

*To:* *Dania Zinner, Rebecca Thomas, David Berry, Deborah McKean (EPA, Region 8)*

*From:* *Lynn Woodbury, Teddy Marcum*

*Date:* *September 23, 2013*

*Subject:* *Response to Comments on the Draft OU1 Post-Construction Activity Based Sampling Plan*

---

As requested, CDM Smith has, in consultation with EPA, prepared formal responses to comments from Montana Department of Environmental Quality (DEQ) on the *Sampling and Analysis Plan/Quality Assurance Project Plan (SAP/QAPP): 2013 Post Construction Activity-Based Sampling for Operable Unit 1 (OU1) of the Libby Asbestos Superfund Site*.

**Responses to Montana DEQ Comments**

1. General Comment: The DEQ does not see any reason for there to be a Post-Construction Risk Assessment of OU1 (or OU2). According to the OU1 ROD, ". . . the selected remedy must be reevaluated when the site-wide risk assessment is completed." Furthermore, "(a)n ecological risk assessment is being developed at the mine site, OU3. Once that work is complete, EPA will build upon information gathered during the risk assessment for OU3 to identify potential pathways and receptors to evaluate ecological risk at OU1." (Both citations are from page D-1 of the ROD for OU1). Neither the site-wide risk assessment, the OU3 ecological risk assessment, nor the risk assessment for OU3 is complete. It is premature to be performing a risk assessment for OU2 *[sic]*.

   *Response: The post-construction human health risk assessment (HHRA) for OU1 will be an interim evaluation of potential human health risks in OU1. Since waste is left in place, effectiveness of the remedy will be routinely evaluated in five year reviews. Those reviews will consider any new information, such as the anticipated reference concentration for Libby Amphibole asbestos, in making effectiveness determinations.*

2. Page 19, Section A5.4—This section states that the "data are needed to evaluate potential exposures to City workers that mow and maintain the Riverfront Park and individuals who may recreate at the park." There is no mention of a construction worker scenario or excavation/digging scenarios. Previously, on page 17, EPA states that the City conducts various maintenance activities in area 3 of OU1, including replacement of guardrails and guardrail posts, and replacement of roadside light posts. It is reasonable to assume that City workers may be exposed to LA remaining in

the subsurface in the course of maintenance activities. Data are needed to assess the risks associated with excavation/digging scenarios.

*Response: The SAP/QAPP does not include an evaluation of potential risks to City construction workers from exposure to subsurface soil because this is not a complete site-related contaminant exposure pathway under current or future conditions assuming that institutional controls (ICs) are followed to maintain the remedy. It is presumed that exposure and risk from LA-contaminated subsurface soils have the potential to be significant and should be avoided; measured data are not necessary to demonstrate this. It is for this reason that ICs have been established at OU1 that prevent unrestricted use.*

*The selected remedy and ICs are described in the Record of Decision (ROD) for OU1 (EPA 2010). Exposure pathways to the residual Libby amphibole asbestos (LA) contamination present in the subsurface at OU1 are eliminated by a combination of containment (with soil covers) and removal (excavation and disposal). Long-term operations and maintenance (O&M) which includes monitoring and reporting components, ICs, and statutory reviews (five-year reviews and other) provide assurance that the integrity of the remedy will be protected (EPA 2013). ICs may include governmental, proprietary, and informational controls such as community awareness programs. ICs may allow residential, commercial, and recreational land use, but will limit uses that might damage the remedy. ICs in place for OU1 include a U-Dig notification procedure providing information of "known areas of subsurface vermiculite at OU1" to anyone conducting work on the property. Additionally MDT Encroachment permits are required when intrusive work is requires within the right-of-way (ROW) to Highway 37.*

*Cited References:*

*EPA. 2010. Record of Decision for the Libby Asbestos Superfund Site, The Former Export Plant, Operable Unit 1, Lincoln County, Montana. May.*

*EPA. 2013. Operations and Maintenance Plan, Libby Asbestos Superfund Site, The Former Export Plant Site, Operable Unit 1, Lincoln County, Montana, prepared for the EPA by the USACE and CDM Federal Programs Corporation. July.*

3. Page 18, Section A5.3, Final paragraph on page—EPA states, "One of the main concerns at OU1 is the presence of residual vermiculite in subsurface soil. Buried vermiculite was encountered during several excavations at the OU (e.g., during the installation of phone lines and a water pipeline and during cleanup activities). The Final OU1 RI (EPA 2009) indicated that buried vermiculite at OU1 could serve as a potential source of release and re-contamination of surface soils with LA under circumstances in which subsurface soils might become exposed. This could result from natural weather and erosion at the OU, children or workers digging in the dirt, as well as a range of potential future construction activities that involve soil excavation or earthwork. However, institutional controls (ICs) for OU1 restrict these types of activities." As digging below the cap has already occurred, it is fair to assume that unpermitted excavations (by children or workers) are likely to occur again. Buried vermiculite has already been encountered and may be a potential source of release and re-contamination of surface soils, and an excavation/digging scenario ABS is appropriate to fully characterize the risks in OU1. The EPA does not provide detail as to the extent of operations

and maintenance required to keep the remaining vermiculite contained. Given the broad range of activities that may expose residual vermiculite in subsurface soils, additional data is needed to assess the risks posed by exposed subsurface vermiculite. Additionally, DEQ notes that O&M activities regarding soil covers should not take the place of remedial actions.

*EPA has undertaken extensive cleanup activities at OU1 (including demolition of the former Export Plant buildings and other contaminated structures), as well as excavation and replacement of surface material at a number of locations across the OU. The selected remedy for OU1 as described in the ROD (EPA 2010) included a combination of containment (with soil covers) and removal (excavation and disposal) and ICs with monitoring. The selected remedy meets the mandates of CERCLA §121 and the National Contingency Plan and complies with all federal and state requirements that are applicable or relevant and appropriate to the remedial action. The remedy is protective of human health and the environment by eliminating exposure pathways associated with site-related contamination. Exposure to contaminated soil remaining at depth will be controlled by limiting access and use of ICs to address potential future uses. The ROD (EPA 2010) specifies numerous ICs that prohibit damage to the selected remedy and prevent unrestricted use of the OU (see response to comment 2).*

*The O&M Plan (EPA 2013) presents the technical details and requirements for inspecting, operating, and maintaining the selected remedy for OU1. O&M activities include monitoring remedial covers associated with remaining LA present in the subsurface soil at OU1 (EPA 2013) to maintain the integrity of the remedy components thus ensuring the protectiveness of the selected remedy. Corrective actions to maintain the integrity of the remedy in the case of unauthorized digging or other actions are described in the O&M plan (EPA 2013).*

*As noted above, it is presumed that exposure and risk from LA-contaminated subsurface soils have the potential to be significant and should be avoided; measured data are not necessary to demonstrate this.*

*Cited References:*

*EPA. 2010. Record of Decision for the Libby Asbestos Superfund Site, The Former Export Plant Operable Unit 1, Lincoln County, Montana. May.*

*EPA. 2013. Operations and Maintenance Plan, Libby Asbestos Superfund Site, The Former Export Plant Site, Operable Unit 1, Lincoln County, Montana, prepared for the EPA by the USACE and CDM Federal Programs Corporation. July.*

4. Page 21, Section A7.4, EPA states that the equipment used to perform ABS mowing activities may be different than the commercial equipment used by City workers, which could result in differences in asbestos released to air, but this is not known with certainty. Given the uncertainty with the testing methods, as well as the danger posed by inhalation of LA, EPA should use testing methods that accurately capture the exposure risks faced by City workers. In the event that that EPA uses mowing methods different than those used by the City, the EPA should explain how the use of the different mowing method will result in more conservative (i.e., more protective) data results.

*Response: A rotary walk-behind mower is conservatively used to evaluate potential exposure to LA faced by City workers involved in mowing activities within OU1. Based on visual observations of mowing activities with different types of mowers, it appears that walk-behind mowers have a higher potential for dust generation (and hence asbestos release) than riding mowers. In addition, the mower operator of a walk-behind mower has a higher potential for exposure due to a nearer proximity to the ground surface, thus it is expected that the measured mowing ABS air concentrations for OU1 would be representative of the high-end of potential mowing exposures.*

*[Note: On the 6/18/13 Libby non-construction call, MDEQ representatives acknowledged that use of a walk-behind mower in the post-construction ABS for OU1 rather than a riding mower was appropriate and likely to be conservative.]*

5. Page 27, section B1.1—The ABS does not contemplate excavation or digging scenarios. City workers are likely to face these scenarios given their stated job duties (see comment 2 above).

*Response: See response to comment #2.*